

Engelmann (Geo. J.)

DUP.

Supplementary.

TIME OF CONCEPTION AND DURATION PREGNANCY.

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SINCE the appearance of my short paper upon Time of Conception and Duration of Pregnancy in the COURIER for May, 1880, three additional cases have been reported to me by gentlemen well-known to the profession; these cases are well authenticated and established beyond the possibility of a doubt, by the character of the patients, and the careful cross-questioning by the judicious attendant. On account of the extreme rarity of reliable cases of this kind, in which we can positively trace conception to a first and single intercourse, and in order to complete the table, I wish to record these additional cases as supplementary to the above mentioned paper.

I will briefly recall the cases already published, which have occurred in my own practice, and, to facilitate comparison, I will number them as in the previous article:

Case I.—Patient is an educated lady, 22 years of age, physically well developed, but nervous and troubled with menstrual irregularities; the intermenstrual period varying from four to six weeks.

The last menstrual flow appeared on the 28th of April; while on a visit five weeks later, on the 4th of June, as she was expecting the next period, she yielded to the seducer with whom she had connection but once, as she returned to her home soon after. The expected flow did not appear; a normal pregnancy followed; on the 2nd of March, 272 days after impregnation, she was confined, and early on the 3d delivered of small, but healthy female twins.

Case II.—A well developed and unusually healthy young lady of 24 years, yielded, for the first time, on the 4th of July; as she has never been regular, she is unfortunately not able to recall the date of the last sickness previous to this, her first coitus; however that may be, she never menstruated after it; and had connection but once more toward the end of July, at least three weeks after the first.

This patient was also confined on the 2nd of March, 242 days after the first intercourse, and was delivered of a fine healthy child, which, with but a few trifling differences, bore all the characteristics of a child at term.

Case III.—On the 3d of March I was consulted by a girl of 24 years, daughter of a farmer, who, to all appearances seemed to be in the eighth month of pregnancy; the fundus uteri a hand's breadth above the navel, the navel pouting, ballotement distinct. Patient had menstruated last about the middle of July, and had yielded for the first time during the last days of the period, before complete cessation of the flow; connection was had but once at this time, and, although indulged in very frequently afterward, opportunity did not again offer for almost a month, which would have allowed time for the recurrence of the menses had not conception taken place, and, judging from the development of the uterus and the position of the fetal head in the pelvis, gestation must have continued well over seven months, and impregnation must have taken place during the last days of the menstrual flow.

Case IV.—The young lady, whose case is reported by Dr. W. Sinkler, of Philadelphia, was a healthy, well-developed girl of 20, always regular in menstruation; she was engaged to be married, and at the close of a menstrual period, on the 9th of August, yielded to the heedless passion of her affianced. The mortification consequent upon the act caused a temporary separation, but, when a month later the non-appearance of the menstrual flow told that pregnancy had resulted from the single imprudence, marriage followed, and upon May 15th, after the lapse of 280 days, the lady was delivered of a well-developed female child.

The labor had perhaps been hastened by an accident which happened May 11th, causing the escape of the waters.

Case V.—This case occurred in the practice of Dr. T. L. Papin of St. Louis. The patient was a refined, delicate lady of 19, who might almost be called an invalid, as she never had been strong, and was recovering from an attack of pneumonia when she was married. For eighteen months the menstrual flow had been absent, but, as she was improving, and her health seemingly to a great degree restored, a return of the catamenia was looked for. On the 22d of January she was married, but, as coitus caused her great suffering, the thoughtful husband refrained from further intercourse out of regard for the delicate health of his young wife. The menstrual flow did not return, and on the 15th of October she was delivered of a well-developed female child.

Case VI.—This case also occurred in the practice of Dr. Papin. The patient was a young married woman, 21 years of age, of delicate constitution, although in good health and free from any uterine ailment. She conceived soon after marriage, but miscarried in the third month; this was in April, and, on the 22nd of the following August a second conception took place in consequence of a single intercourse, the first which occurred after the cessation of the menstrual flow; upon the following day the husband left his wife, and returning after a two weeks absence, found her suffering from nausea and complaining of sick stomach. The flow did not return, and on May 12th a well-developed male child was born, 263 days after intercourse.

Cases IV. and V. like the cases related in my first paper, are examples of fruitful first intercourse.

In Case IV. conception occurred during the last days of a period, and in Cases III. and VI. immediately after the cessation of the flow.

These patients are all primiparæ, and in only one of the six cases (Case IV.) was the ovum carried to the full term of 280 days, which seems to be in harmony with the ordinarily

accepted belief that a first child never receives the full development accorded by the ordinary duration of pregnancy—a very wise provision for the young mother.

The term varied in these cases from 242 to 280 days, and the average duration of pregnancy for the cases recorded is 264.6 days.

In all the above cases conception followed a single coitus of known date, and, in all but case VI. it was a first coitus.

Though it seems but an accidental coincidence, it may be noted that when conception occurs immediately before the appearance of the menses, the offspring is likely to be of the female sex, whilst when conception results from an intercourse directly after the cessation of the flow, the child is likely to be of the male sex (Case VI).

Case IV. unfortunately will not harmonize with this theory.

Much has been written of late upon the circumstances which determine the sex of the child; some will have it dependent upon the time of conception in relation to the menstrual flow—others upon the age of the mother, whilst still others assert that it is governed by the relative age or vigor of the parents.

J. B. Swift (*Boston Medical and Surgical Journal*, Sept. 26, 1878) claims that the sex of the offspring is determined by the number of spermatozoa which penetrate the ovule; if few in number, as in intercourse just before the period, when they must travel far into the female passages, the female element predominates and stamps the sex of the child; after cessation of the flow, when the ovule has come lower down the tubo-uterine canal, it is subject to impregnation by greater numbers of spermatozoa, and a male child results.

Stock-breeders have successfully availed themselves of this theory, and Swift verifies it by twenty recorded cases; in eleven of these, fruitful intercourse took place within eight days after the cessation of the catamenia, and a male child was born in every instance; in the remaining nine cases, in which conception took place shortly before the appearance of the flow, the gentler sex was produced.

Nestel (*Medical Record*, Nov. 9, 1878,) denies this theory on the ground that one spermatozoon suffices to impregnate the ovule and that only one can enter, although physiology and comparative anatomy teach that among lower animals several spermatozoa are necessary for impregnation.

Dr. Joseph A. Mudd (*Medical Record*, Nov. 23, 1878) without theorizing, claims as a fact proved by his 110 cases, the very opposite of the law so carefully elaborated by Swift. In harmony with the facts proven experimentally by Thury of Geneva, upon animals, Dr. Mudd claims that a female child will result from a conception which occurs soon *after* menstruation and a male child from fruitful coitus just *before*, because he has found that in cases where the duration of pregnancy was longer than normal the offspring was male, and if labor came sooner than expected, female.

All seek reasons peculiar to themselves. Thus Dr. H. U. Upjohn (*Medical Record*, Dec. 7, 1878) sees the same law verified by his own experience, and explains it by the existence of male and female spermatozoa, the female being the more numerous and the male the more vigorous. Before the menstrual flow, when the ovule is still high up in the tube or uterus, it can only be reached by the vigorous male spermatozoa; whilst after the period, it comes down in the uterus and is impregnated (overpowered seems more correct) by the greater number of female spermatozoa. (*Centralblatt fuer Gynaecologie*, No. 9, 1879, II.)

Others again have sought to connect the age of the mother with the sex of the child. Bidder (*Zeitschrift f. geburtsh. u. Gynaekologie II.*) has collected 11,871 cases, 4,441 primiparae and 7,430 multiparæ; he finds that the proportion of males exceeds that of females in mothers aged from seventeen to twenty-one; the number sank in the twenty-second and twenty-third years, reached its minimum at the ages of twenty-four and twenty-five, and then again increased in proportion to the age of the mother.

I merely state these various views, but whatever my belief may be, I dare not express it until corroborated by a sufficient number of authenticated cases.

Duration of Pregnancy.

I shall not analyse these cases, as no new features have been developed, and I could add nothing to the observations made in my previous paper; the additional cases merely seem to corroborate the conclusions reached by a consideration of the first.

| Number of Cases. | Physician Attending. | Age of Patient. Married or Single. | Number of Pregnancy. | Time of Fruitful Coitus Relative to Menstruation. | Date of | | Duration of Pregnancy. | Sex of Child. |
|------------------|----------------------|---------------------------------------|----------------------|---|----------|----------|------------------------|---------------|
| | | | | | Concep. | Deliv'y. | | |
| 1 | Dr. Engelmann | 22 S | I. para | Immediately Before Expected Period. | June 4. | March 2 | 272 tw's | F |
| 2 | Dr. Engelmann. | 24 S | I. para | | July 4. | March 2 | 242 | M |
| 3 | Dr. Engelmann. | 21 S | I. para | During the Last Days of Flow. | July. | | | |
| 4 | Dr. Sinkler. | 20 S | I. para | At the Termination of Period. | Aug. 9. | May 15 | 280 | F |
| 5 | Dr. Papin. | 19 M | I. para | Before Expected Period. | Jan. 22. | Oct. 15 | 266 | F |
| 6 | Dr. Papin. | 21 M | II. para | After Cessation of Flow. | Aug. 22. | May 12 | 263 | M |



